

The City of Boulder's Housing Authority always is looking for opportunities to stretch its budget in order to provide affordable housing for low-income residents, seniors and physically challenged citizens. When an energy service company (ESCO) approached the housing authority with a way to make its buildings more energy efficient and let the resulting energy savings pay for the improvements, officials saw an opportunity to get better buildings within their existing budget.

"We didn't have the money to do it, but it sounded really good," said Terry Johnson, director of maintenance and modernization at the authority. "The ESCO did an assessment and showed us where we could get our quickest payback and the biggest bang for the buck." Johnson said making the decision to enter into the first performance contract was easy once the energy savings potential was identified. The housing authority is so pleased with the results that it is considering another performance contract to make additional building energy improvements.

Working with a performance contract negotiated by his predecessor is easy, according to Johnson, since the "way the ESCO handled it pretty much took all the headaches out of it for us." And the energy cost savings help the authority meet ever-increasing budget demands.

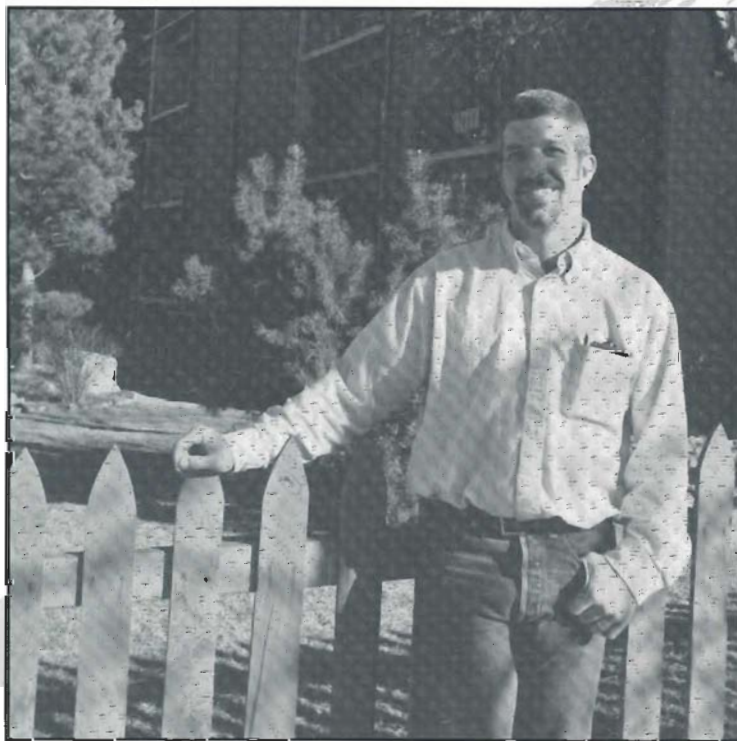
Lighting Improvements Brighten Seniors' Lives

Project Description:

An energy audit showed that lighting improvements would provide the quickest payback for the housing authority, especially at two buildings that house senior citizens. Both buildings are more than 18-year-old high-rises and have common areas like hallways and community rooms, where many lights are kept on 24 hours a day.

The authority entered into a performance contract with the ESCO for a pilot energy savings program at Canyon Pointe, an 82-unit complex for seniors. "A lot of the common areas had regular incandescent

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Terry Johnson of the Housing Authority of the City of Boulder

lighting and old-fashioned fluorescent lighting," Johnson said. "The company came in and replaced the ballasts with new energy-saving ones and put in new bulbs that were compatible with the new ballasts." This was done in hallways, offices and common areas, as well as in the kitchen of each individual apartment.

The contract also contained a maintenance agreement under which the ESCO provided all materials, installation, repairs, and adjustments to the new equipment for the six-year term of the contract.

Benefits/Results:

The energy efficient lighting installed under the performance contract has provided the Housing Authority of the City of Boulder and the residents of Canyon Pointe with a number of benefits, the most obvious of which is the money saved in utility and



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PROJECT DETAILS

Facility: Housing Authority of the City of Boulder, Canyon Pointe Apartments

Facility Type: Multi-family housing

Facility Size: 82 units estimated at 60,000 square feet

Type of Agreement: Performance contract with shared savings and maintenance service

Project Cost: \$11,927 (\$2,700 utility rebate included in total)

Energy Cost Savings: \$3,708 per year

Contract Term: 6 years (contract completed in 1996)

Projected Internal Rate of Return: 17% (excluding rebates and financing effects)

Projected Profitability Index: 1.3 (excluding rebates and financing effects)

Energy Efficient Features:

- Energy efficient fluorescent lighting

Benefits:

- Reduced utility expense
- Improved and more natural lighting
- Reduced maintenance costs
- Improved tenant comfort
- Reduced environmental pollution

maintenance costs. Now that the contract is complete, the authority is using the \$3,650 in annual energy cost savings for other pressing needs.

"It's definitely paying for itself and we're seeing some definite energy savings," said Johnson.

But the upgrades also brought other, less tangible benefits in the form of improved comfort for tenants and more natural lighting.

"We didn't get any negative feedback from the residents during installation," said Johnson. "In fact, they were happy to help us out, and they like the results. That was another big selling point."

Process:

Johnson said that although he wasn't at the housing authority when the performance contract was negotiated, his co-workers have told him that the whole process went smoothly.

"It really was a turnkey operation," he said. "They (the ESCO) took care of everything—the paperwork, the financing—that we didn't have the time or staff to handle." Installation also went smoothly, according to Johnson.

One part of the contract that Johnson feels may have been unnecessary was the maintenance agreement, since he has a fully-staffed maintenance crew that could have handled the work. Overall, however, he's pleased with the performance contracting process and wants to try it again.

"We plan to issue a request for proposals for another performance contract that would involve heating systems, insulation and windows," Johnson said. He added that a study on improving energy efficiency in public housing, conducted by the U.S. Department of Energy, helped with the decision to make additional energy efficiency improvements.

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